

Appln No. 09/642,458

Amdt date November 17, 2003

Reply to Office action of August 27, 2003

REMARKS/ARGUMENTS

Claims 1-3, 5-39, 41-42, 46 and 48-51 are pending in the present application, of which claims 1, 22 and 41 are independent. Claims 1, 22 and 41 have been amended herein, and new claims 50 and 51 have been added. Applicants respectfully request reexamination, reconsideration and allowance of claims 1-3, 5-39, 41-42, 46, 48 and 49. Further, applicants respectfully request consideration on the merits and allowance of the newly added claim 50 and 51.

Applicants appreciate the time and courtesy extended to applicants' attorney during the telephone conference of November 5, 2003, during which claims 45-49 have been discussed. In particular, applicants' attorney brought to the attention of the Examiner that the rejection in the Office Action does not specifically provide the reason for their rejection. Applicants' attorney agreed to submit an amendment, in which claims 1 and 22 are amended to incorporate a limitation from claims 45 and 47, respectively.

Applicants respectfully submit, however, that any future Office Action that rejects claims 1 and 22 under new grounds for rejection should be a non-final Office Action since they contain a limitation from the previously presented claims 45 and 47 (now canceled), respectively, for which no reason for rejection was provided in the Office Action.

Claims 1-3, 5-39, 41-42 and 45-49 have been rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 5,982,459 ("Fandrianto et al.") in view of U.S. Patent No. 5,889,949 ("Charles"). Applicants, however, were not able to

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find the reasons for the rejection of claims 45-49 in the Office Action.

As discussed with the Examiner, applicants have incorporated a limitation from claims 45 and 47 (now canceled) into claims 1 and 22, respectively, the claims from which they depended. Further, applicants do not see in the art of record any disclosure of the limitation incorporated into claims 1 and 22.

Claim 1 now recites, in a relevant portion, "[a] system on an integrated circuit chip comprising: an MPEG video decoder for processing MPEG video data . . . a system bridge controller having a north bridge function for coupling a CPU to a plurality of peripheral devices, wherein the CPU and the plurality of peripheral devices are situated externally to the integrated circuit chip, and wherein the system bridge controller supports delayed read and retry of reads by external masters." Through such support of delayed read and retry of reads by external masters, I/O bus throughput is enhanced. This combination is neither taught nor suggested by the cited references, either individually or jointly together. Therefore, applicants request that the rejection of claim 1 be withdrawn and that claim 1 be allowed.

Since claims 2-3 and 5-21 depend, directly or indirectly, from claim 1, they incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 2-3 and 5-21 be withdrawn and that they be allowed.

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Claim 22 now recites, in a relevant portion, "coupling the CPU to a plurality of peripheral devices via a system bridge controller having a north bridge function on an integrated circuit chip, wherein the integrated circuit chip is used to process MPEG video data to generate video for displaying and to display the video, and wherein the CPU and the plurality of peripheral devices are situated externally to the integrated circuit chip, and wherein the system bridge controller supports delayed read and retry of reads by external masters." Through such support of delayed read and retry of reads by external masters, I/O bus throughput is enhanced. This combination is neither taught nor suggested by the cited references, either individually or jointly together. Therefore, applicants request that the rejection of claim 22 be withdrawn and that claim 22 be allowed.

Since claims 23-39 depend, directly or indirectly, from claim 22, they incorporate all the terms and limitations of claim 22 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 23-39 be withdrawn and that they be allowed.

Claim 41 now recites, in a relevant portion, "[a] system on an integrated circuit chip comprising: an MPEG Transport processor . . . an MPEG video decoder . . . means for displaying the video . . . a system bridge controller having a north bridge function for coupling a CPU to at least one of the MPEG Transport processor, the MPEG video decoder and the means for displaying the video, and to a plurality of peripheral devices,

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wherein the CPU and the plurality of peripheral devices are situated externally to the integrated circuit chip, and wherein the system bridge controller supports delayed read and retry of reads by external masters." Through such support of delayed read and retry of reads by external masters, I/O bus throughput is enhanced. This combination is neither taught nor suggested by the cited references, either individually or jointly together. Therefore, applicants request that the rejection of claim 41 be withdrawn and that claim 41 be allowed.

Since claim 42 depends from claim 41, it incorporates all the terms and limitations of claim 41 in addition to other limitations, which together further patentably distinguish it from the cited references. Therefore, applicants request that the rejection of claim 42 be withdrawn and that it be allowed.

The Examiner has rejected claims 45-49 without specifically addressing the limitations contained therein. Now that claims 45 and 47 have been canceled (and their limitations incorporated into claims 1 and 22, respectively), their rejection is moot. Claims 46 and 48, for example, each recite "the system bridge controller supports retry cycles when it is a master". Applicants submit that the limitations of claims 46 and 48 are neither taught nor suggested in the cited references.

Further, since claims 46, 48 and 49 depend, directly or indirectly, from claims 1, 22 and 41, respectively, they incorporate all the terms and limitations of allowable claim 1, claim 22 or claim 41, in addition to other limitations, which together further patentably distinguish them over the cited

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references. Therefore, applicants request that the rejection of claims 46, 48 and 49 be withdrawn and that they be allowed.

New claim 50 recites, in a relevant portion, "the CPU has a first data width that is a multiple of a second data width of at least one of the one or more I/O devices, and wherein the I/O bus bridge automatically converts a data access with the first data width by the CPU into multiple data accesses with the second data width to support said at least one of the one or more I/O devices having the second data width." Applicants submit that none of the cited references teach or suggest such automatic conversion of data width by a system bridge controller in data accesses. In addition, claim 51 has limitations similar to those of claim 50. Further, since claims 50 and 51 depend indirectly from claims 1 and 22, respectively, they incorporate all the terms and limitations of these base claims and intervening claims from which they depend, in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that claims 50 and 51 be allowed.

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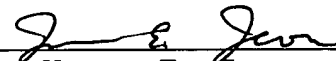
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In view of the foregoing amendments and remarks, applicants respectfully request that claims 1-3, 5-39, 41-42, 46, 48-51 be allowed and an early issuance of a patent. If there are any additional issues that can be addressed over the telephone, the Examiner is invited to call applicants' attorney at the number listed below.

Respectfully submitted,

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